



EXPLANATION

STRATIFIED ROCKS:

CENOZOIC
UNDIFFERENTIATED TERTIARY AND QUATERNARY DEPOSITS

MESOZOIC
PRIMARILY JURASSIC SLATE, GRAYWACKE AND MINOR CONGLOMERATE

MESOZOIC
JURASSIC AND TRIASSIC (?) METAVOLCANIC ROCKS. PRIMARILY PYROCLASTIC ROCKS BUT INCLUDES FINE-GRAINED DIKE ROCKS AND FLOW ROCKS

INTRUSIVE ROCKS:
GRANITIC ROCKS, PRIMARILY JURASSIC AND CRETACEOUS IN AGE.

MESOZOIC
DIORITE AND GABBRO

MESOZOIC
ULTRABASIC ROCKS, EXTENSIVELY SERPENTINIZED.

PALeozoic
LATE PALEOZOIC METASEDIMENTARY ROCKS OF THE CALAVERAS FORMATION. INCLUDES PHYLLITE, MICA SCHIST, METACHERT, QUARTZITE AND MARBLE

SCHISTOSE METAVOLCANIC ROCKS; INTERLAYERED WITH METASEDIMENTARY ROCKS OF THE CALAVERAS FORMATION OR AS FAULT BOUNDED SLICES OF UNCERTAIN STRATIGRAPHIC POSITION WITHIN THE MELONES FAULT ZONE

CONTACT, DASHED WHERE APPROXIMATELY LOCATED, GRADATIONAL OR INFERRED

NEGRO JACK POINT SLATE-GREENSTONE CONTACT

FAULT OR SHEAR ZONE IN PRE-CENOZOIC BEDROCK, DASHED WHERE APPROXIMATELY LOCATED. (FROM PUBLISHED DATA SOURCES WITH MINOR MODIFICATIONS BY WOODWARD-CLYDE CONSULTANTS)

5 MESOZOIC BEDROCK STRUCTURE, LENGTH OF CROSS HACHURES SHOW APPROXIMATE WIDTH OF THE STRUCTURE; LENGTH OF STRUCTURE REFLECTS EXTENT OF MAPPING BY WOODWARD-CLYDE CONSULTANTS; NUMBER REFERS TO NAME OF STRUCTURE LISTED IN KEY

6 FAULT AND/OR FLEXURE IN CENOZOIC DEPOSITS, NUMBER REFERS TO NAME.

CENOZOIC FAULTS:

- 1 YOUNGS CREEK
- 2 POORMAN GULCH
- 3 NEGRO JACK POINT
- 4 GREEN SPRING RUN
- 5 BOWIE FLAT
- 6 PEORIA PASS
- 7 RAWHIDE FLAT WEST
- 8 RAWHIDE FLAT EAST

MESOZOIC BEDROCK STRUCTURES:

- 11 PEORIA BASIN
- 12 BOSTICK MOUNTAIN
- 13 RAWHIDE FLAT WEST and EAST
- 14 KEYSTONE
- 15 HETCH HETCHY JUNCTION
- 16 BARRETT COVE
- 17 PINEY CREEK
- 18 HORNITOS
- 19 INDIAN GULCH
- 20 TUOLUMNE MELANGE

DATA SOURCES:

*1. STRAND and KOENIG (1967)

**2. ROGERS (1966)

*3. STRAND (1967)

4. BEDROCK STRUCTURES FROM WOODWARD-CLYDE CONSULTANTS STUDIES

*WITH MINOR MODIFICATIONS BASED ON WOODWARD-CLYDE CONSULTANTS STUDIES

★FAULTS LOCALLY MODIFIED TO CONFORM WITH MORGAN (1976)

0 1 2 4 6 8 MILES

0 2 4 8 12 KILOMETERS

STANISLAUS NUCLEAR PROJECT

GEOLOGY OF THE SOUTHERN STUDY AREA (VALLEY SPRINGS-MOKELUMNE HILL to SHULTZ MTN.-MARIPOSA)

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Figure 3 (to FER-148). Map of southern Foothills fault zone, showing location of site specific studies conducted by Woodward-Clyde Consultants (1978).